

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

December 19, 2003

**MEMORANDUM FOR:** J. Kent Fortenberry, Technical Director  
J. J. McConnell, Deputy Technical Director  
**FROM:** R. T. Davis/ T. D. Burns  
**SUBJECT:** SRS Report for Week Ending December 19, 2003

**H-Canyon:** On Thursday, WSRC completed the dissolution of the last Mark 16/22 spent nuclear fuel bundle. This completes the Recommendation 94-1/2000-1 implementation plan milestone for stabilization of spent nuclear fuel at SRS. The campaign began in July 1997 and included stabilization of 1,170 fuel assemblies.

Highly Enriched Uranium (HEU) solutions generated as a result of this campaign continue to be blended with natural uranium to produce Low Enriched Uranium (LEU). WSRC has loaded 33 trailers with LEU solution for shipment to the Tennessee Valley Authority vendor as a part of the HEU blend down program. Neptunium solutions produced as a part of this dissolution campaign are currently being stored in H-Canyon. Approximately 60% of the solution will be transferred to HLW. The remainder will be converted to an oxide in HB-Line and shipped to Oak Ridge for production of plutonium-238.

**HB-Line:** In Phase I, WSRC is nearing completion of the "must dissolve" plutonium scrap. This campaign should be complete by the end of the calendar year. In February, WSRC should begin receiving denitrator product from the Idaho National Engineering and Environmental Laboratory. This material will be dissolved in HB-Line. HEU solution produced as a part of this campaign will be included in the HEU blend down program.

In Phase II, WSRC continues to prepare for the neptunium processing campaign. Authorization basis documents have been approved by DOE-SR and facility modifications are complete. Cold runs are scheduled to begin in mid-January. The DOE Readiness Assessment and startup are scheduled for July and August, respectively.

**Building 235-F:** The mission need (i.e., Critical Decision 0) for the building 235-F expanded storage and surveillance capability was approved by DOE in October 2003. Conceptual design activities are in progress and should be complete in February 2004. However, additional fiscal year 2004 funding is required to procure long lead materials. This project will provide rack storage for approximately 2000 DOE standard 3013 cans. The expanded storage part of the project is scheduled to be complete in the Spring of 2006.

The project will also provide surveillance and repackaging capability for 3013 cans. Startup of this capability in building 235-F is scheduled for late 2007. In the interim, FB-Line would be utilized to handle any damaged or suspect cans. However, DOE-SR plans to de-inventory and shutdown FB-Line in 2005. To fill the gap, DOE-SR plans to provide limited glovebox capability in building 235-F. The interim capability provides the ability to vent and overpack suspect containers to meet the Interim Safe Storage Criteria.